

# California **GARDEN**

MAY—JUNE 1976

Volume 67, Number 3  
Fifty Cents



## FLORAL EVENTS, MEETINGS and TOURS

May 15, 1976: Julian Wildflower Show; visit the beautiful back country and enjoy a day in the refreshing Cuyamaca Mountains (Julian); leave Balboa Park 8:00 a.m. and La Jolla Library 8:30 a.m.; \$6.50; (Please contact Floral Office at 232-5762 for information).

May 25, 1976: Mrs. Kirkpatrick's Flower Arrangement Class; Room 101, Casa del Prado, Balboa Park, 10:00 a.m. to 12:30 p.m.

June 15, 1976: San Diego Floral Association Annual Meeting—Pot Luck Dinner; 6:30 p.m. in the Majorca Room, Casa del Prado, Balboa Park. Program "Waltz of the Flowers" by Charles Ledgerwood of Carlsbad, California.

## OTHER EVENTS

May 12 & 13: Point Loma Garden Club Spring Show—"In Pursuit of Happiness"; St. Peter's by the Sea, 131 Sunset Cliffs Blvd.; Wednesday, 4:00 to 9:00 p.m.; Thursday, 10:00 a.m. to 2:00 p.m.; FREE.

May 15 & 16: San Diego Geranium Society presents its Fourth Annual Spring Show; Majorca Room, Casa del Prado; both days 10:30 a.m. to 5:30 p.m.; FREE.

May 15 & 16: Poway Valley Garden Club Flower Show; Meadowbrook School, Poway; Saturday, 1:00 p.m. to 5:00 p.m.; Sunday, 10:00 a.m. to 5:00 p.m.

May 21 & 22: Village Garden Club of La Jolla Flower Show; United Methodist Church, 6063 La Jolla Blvd. La Jolla; Saturday, 1:00 p.m. to 4:00 p.m.; Sunday 10:00 a.m. to 4:00 p.m.

May 22 & 23: Fallbrook Garden Club Flower Show; Fallbrook.

May 23, 1976: San Diego Epiphyllum Annual Spring Show—"Spirit of '76"; Majorca Room, Casa del Prado, Balboa Park; open 11:00 a.m. to 5:00 p.m.; FREE.

May 29 & 30: San Diego Botanical Garden Foundation Plant Sale; Patio, Casa del Prado, Balboa Park; 10:00 a.m. to 4:30 p.m.

June 5 & 6: San Diego Fuchsia Society and Shade Plant Show; Majorca Room, Casa del Prado, Balboa Park, Saturday, 12:00 noon to 5:00 p.m.; Sunday, 10:30 a.m. to 5:00 p.m.; FREE.

June 19 & 20: Sakura Doll Show—"Enchantment"; a display of Japanese dolls and flower arrangements; Majorca Room, Casa del Prado, Balboa Park; Saturday, 11:00 a.m. to 5:00 p.m.; Sunday 10:30 a.m. to 5:00 p.m.; FREE.

*In early May the peach blossoms that have been overhead, now cover the lawn around the bowling green like pink flakes of snow; everywhere flowers are lifting their faces to the sun, and the green landscape is bright with showy trees. It is the season of revelry for the bumblebee. Thousands of them hover and romp about in the cushiony blossoms of the bottlebrush tree in a grand droning chorus, while others, with epicurian delight, sip their fill from the perfumed chalices of the tabebuia, bauhinia, and jacaranda. May is also the time of the fairest shrub and sweetest birdsong; it is the beginning of some gardener's dream that will be realized in the radiant bloom of a Special Spring Garden. . . the gateway into endless patterns of beauty, their waiting stillness yet clothed in a veil of holy mystery.*

—A. Phidd  
AKA Jim Stalsonburg



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# California GARDEN

Published Since 1909 by the SAN DIEGO FLORAL ASSOCIATION  
Casa del Prado, Balboa Park, San Diego, California 92101

Monday through Friday  
232-5762

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Our cover is by the late Alfred Hottes—author, artist, horticulturist, and long time member of San Diego Floral Association.

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# A Homemade Beanery

by ROSALIE GARCIA

MANY COUNTRIES have established a national dish made of beans that has achieved high fashion status. Our Mexican neighbors are partial to the speckled pinto, but in their markets are great tubs of many other dried beans. The poorest of homes will have the earthen or iron pot set on charcoal in a hole in the ground at night for a steaming pot to dip out of all the next day. A side dish of refried beans is served with most menus. In the Congressional Dining Room, bean soup made of navy beans is a staple. The New England baked beans mixed with giblets of salt pork and molasses and baked slowly all day is famous. Black bean soup has long been a fashionable after theater meal. The French cassoulet (casserole) of white beans baked with sausage, salt pork, herbs, garlic and bread crumbs is worth cultivating as a one-dish meal.

In our Southern states seeds of the legume family called peas are still a staple. My husband distinguishes them as "Arkansas beans" but accepts them. There are black eyed peas, crowder peas, lady peas, speckled whip-poor-wills, and the common brown "field" peas, grown between the rows of corn or cotton. They grow on bushes up to three feet, have pods six to eight inches long, and come along late in the summer. Generally the pods are not eaten except for a few very young ones mixed with the shelled peas and boiled with pork. Combined with okra and tomatoes they are called "slumgugeon"; served with rice they are "hopping john," a dish that is a perfect meal with all the protein, carbohydrates, and fat that one needs. Ham hocks or fresh pork back bones cooked with the dried peas make a delectable dish.

All beans are members of the pea family; the edible ones are of the genus *Phaseolus*. Bailey says there are from 150 to 200 species of beans, including the ornamentals and those raised for stock feed. The Spaniards found them growing in South America and took them back to Spain. They are warm weather plants, but grow as well in all the

temperate zones. There are both bushes and vines; most of the commercial ones are of the bush type, for they lend themselves to mechanical cultivation, harvest, and shelling.

Hybridizers are constantly working on new varieties of beans. The greatest improvements have been in the bush varieties. Since home gardeners raise beans mostly for the young pods, great improvements have been made in green beans. Newer types are longer, more supple, and faster growing, maturing in as little as 45 days. The bushes usually have only one crop, but by planting a few seeds every two weeks one can have fresh, succulent green beans from June to November. Soak the seeds about an hour in warm water, and they should pop up in less than two weeks. At this tender stage snails are a hazard, as well as the chilly nights in late March and April. Plastic rings or bottomless paper cups set over the little plants are a great protection. It takes longer for pole beans to bear, usually three months from the time of planting, but they keep on bearing longer as the vines continue to bloom at the ends. For that reason, they should be given a six to eight foot pole to climb, or put posts at the end of each row and stretch wires at the top and bottom with stringers for the tendrils to climb on.

Besides the snap beans, there are many others, some familiar and some unusual. The English broad bean, fava or horse bean is a pretty grey-green plant about two feet tall, producing pods with two or more big beans, about the size of a thumb nail. Eaten both fresh and dried, it has a distinctive flavor and takes a long time to cook. They are high in protein and often grown in fields for stock feed.

The soy bean, so useful and widely grown for food, stock feed, and industrial uses, has several varieties for the home garden. Like the fava, it should be grown in quantity to get enough to eat shelled, green or dried. From seed to harvest takes up to 100 days. The hardest of all beans to

cook, it yields to a pressure cooker when time and patience are in short supply. This little roundish bean was known in China where it was a staple for thousands of years, and now is a basic crop in the Midwest and South where there is plenty of rain.

The chickpea or garbanzo, that round many-ridged bush bean, was liked by the Spanish who imported it to the Americas. It is also stubborn to cook, but its chestnut-like flavor and texture makes it a fine substitute for potatoes, stuffings, and peanut butter. When boiled, then toasted or fried, they may be eaten like nuts. In soups, as well as salads, garbanzos add both flavor and protein.

The Exotic asparagus pea resembles a ground cover. Its blossoms are like sweet peas, and the leaves similar to peanuts. The short, furry pods are tightly filled with seeds tasting like a cross between asparagus and English peas.

The small round mung bean, used mostly to make sprouts, is a bush variety. The Orientals have used it for centuries. It takes 90 days to mature, and a few more weeks to dry on the vine. Sprouting one's own beans is not difficult. The only equipment needed is a wide-mouthed quart jar with a piece of screen cut to fit under the jar ring for air circulation. Soak the beans overnight, keep moist for three or four days in a warm dark place, like under the sink, and there are the sprouts. Soy beans make even better and bigger sprouts, and alfalfa seeds smaller ones.

The yard long bean, sold as the Japanese bean, must be the original Jack-in-the-bean-stalk, for the vine will grow 50 to 100 feet if it can find something to cling to. When I was a child in Little Rock, Arkansas, an aunt grew this bean and she never heard of its Japanese origin. The beans are slender and as much as a yard long, but they are most edible when from one to two feet long. They are very spectacular growing on a tall wire fence or trellis, for the beans hang in clusters of varying lengths. One can buy them in our Oriental markets, though they are not as tender as 'Blue Lake' green beans.

Then there are pole beans with flashy flowers, the most common being the scarlet runner. Planted along a porch or a trellis, they are show stoppers with brilliant red sweet pea-like flowers and rich green foliage. As a bonus, the pods are edible when very young, as are the seeds when big

enough to fill out the pod, though there are better beans.

Lima beans are both bush and vine types, and yield either large and baby limas. I am partial to the small ones, but many think the larger have a better flavor. They are definitely the hot weather bean, coming on in late summer and fall and bearing profusely over a long period. One does not eat the green pods which are tough to shell by hand. There is a sturdy perennial pole lima with big seeds and dense foliage. Because the foliage stays green nearly all winter, it makes a fine screen, and when pruned back comes up with new vines year after year.

The flat, tender Romano or Italian beans are coming into favor. These early beans, both bush and pole, should be planted in late March so they can be finished in July. They lend themselves to canning and freezing and cook in a few minutes.

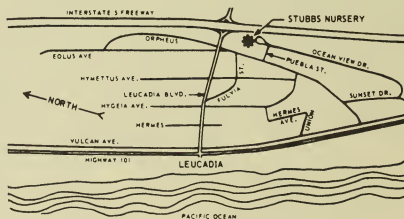
Beans need good garden soil and almost no nitrogen fertilizer, for they have the capacity of making their own nitrogen. Farmers long ago learned to plow under the spent bean plants to enrich the soil. In our climate, deep irrigation is necessary in summer, and light cultivation when the plants are dry keeps the ground porous. No matter how little space one has, a home made beanery is possible, even in pots and boxes. □

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## HAVE YOU RECENTLY MOVED?

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# Minature Roses

by *EARL McDANIEL*

WHY ARE THE miniature roses becoming so popular? Changes in our way of life has had much to do with their popularity. Lack of garden space due to mobile home and condominium living has brought about a demand for the small roses. Patio or balcony space is all that is available to many people. Miniature roses grow well in redwood planters, hanging baskets and ceramic pots. 'Coral Treasure' is one of our favorites for a hanging basket. 'Green Ice' is a prolific bloomer also making a nice hanging basket. When grown in partial shade it is light green in color; in full sun its green is lost. There are a number of miniature climbing roses but few of them are heavy bloomers. 'Climbing Jackie' is light yellow in color and a very good bloomer.

The miniature tree rose is becoming quite popular and is a charming asset to the landscape gardener. Tree roses are developed by grafting a small bud from a miniature rose on a hearty climber stock. The smaller miniatures are grafted to make short trees. With their tiny blooms, and delicate foliage, they make lovely gifts.

Miniature roses, like the larger roses, are primarily an outdoor plant. Five or six hours of morning sun, in a loose well-balanced soil, with enough moisture to keep them happy should reward the grower with a profusion of blooms. The use of a small amount of slow release fertilizer along with liquid rose or fish fertilizer with the strength reduced, will keep them well-nourished. The bushes are kept shaped by trimming the old blooms as they fade. Doing so alleviates the necessity for a heavy pruning. The main pruning is to thin the bush so the air and sun can reach into and through the center of the bush to help prevent mildew problems. This is particularly necessary with the tiny small leafed varieties. They grow so compactly that the old leaves cannot drop to the ground.

For those who must grow their roses indoors the use of a grow light is recommended. This

light is placed about 14 inches above the potted rose and is lighted about 14 hours each day. The pot is placed over a bed of gravel and water to provide the proper humidity—but, the pot does not sit in the water.

Not all plants adapt to indoor growing. We have found the following plants do quite well indoors: 'White Angel', 'Cinderella', 'Baby Ophelia', 'Gold Coin', 'Baby Betsy McCall', 'My Valentine', and 'Lavender Lace'.

The spider mite is probably the worst enemy of the miniature rose, taking nourishment from the underside of the leaves. If not controlled, they will cause the leaves to wither and drop from the plant. Washing the underside of the leaves daily will help to control them. A spray containing Kelthane or another miticide which does not affect most other insects, is recommended for more complete control.

A book by Charles Marden Fitch entitled **THE COMPLETE BOOK OF HOUSEPLANTS UNDER LIGHTS** will be of great help to the indoor gardener. Mr. Fitch is currently working on a book for miniature rose growers. It probably will be available near the end of the year.

If you have not tried to grow any of the miniature roses, we believe you will find them quite rewarding. The miniature roses give a lovely accent to a patio, a raised bed, a border bed around your larger roses, or along a winding path or driveway. Some suggested varieties: 'Starina'—a beautiful orange-red exhibition flower; 'Yellow Doll'—still the best yellow with a lovely shaped bud; 'Top Secret'—with its long lasting, elongated red bud; 'Lavender Lace'—the best of this shade; 'Mary Marshall'—orange tea-shaped exhibition bloom; 'Baby Darling'—apricot-orange profuse bloomer; 'June Time'—double light pink sprays, and the beautiful soft pink 'Baby Ophelia'. These will give you a nice start with the little miniature roses. A word of warning—they are delightfully habit forming! □





'Tiny Flame'



'Baby Darling'



'Coral Treasure'



'Top Secret'



'Starina'



'Yellow Doll'



'Lavender Lace'



'Mary Marshall'

# Growing Tomatoes

by *GEORGE JAMES*

THE TOMATO IS one of the most versatile and popular vegetables and is included in nearly every vegetable garden. It can be grown over a long season in the coastal zones of Southern California but it does not always grow and bear fruit as expected. Conditions which influence growth and yield are discussed in this article, and where possible, corrective steps suggested.

Blossom drop, the shedding of open flowers, is a common, frequently occurring problem which reduces and delays the formation of fruit. During May and June when the weather is cool and overcast and the night temperatures fall below 55 degrees F, spring flowers which have developed drop because they are not pollinated. Early bearing varieties of tomatoes are less likely to behave in this manner, but at times may also lose flowers. Commercial growers have overcome this problem by using a fruit setting hormone on the first two or three hands of blossoms in the spring, causing fruit to develop without pollination. Fruit setting hormones are available at garden stores in liquid or aerosol form, or as powders which are mixed with water before use; one form is as effective as another. Products in aerosol packages should be held 18 inches away from the plant so the discharged stream changes to a mist before reaching the plant to avoid damaging it. Directions on the container label caution against using hormones more than three times on any one plant. The hormone is a growth stimulator and overuse can cause excessive growth with distorted leaves and stems.

Blossom drop can also be caused by high temperature and hot, dry winds, or by periods of rain or excessive humidity, factors which are beyond the control of the gardener. Conditions such as these inhibit the transfer of pollen in the flower, but shaking, jolting, or vibrating the plant helps in the transfer. If it seems necessary, and the plants have not had prior treatment with hormones, the shaking method can be used to set fruit.

Plants that are growing too vigorously will also drop their flowers. Here the plant diverts its energy into vegetative growth instead of developing fruit. Growth that is too vigorous can be brought about by too much water, so the condition can be corrected by reducing irrigation. For this reason, it is safer to plant tomatoes where they can be irrigated as needed rather than planting them where they will be irrigated according to the needs of companion plants. Over-fertilization also can cause too strong a growth to allow development of fruit, but not much can be done in this situation except to wait until the fertilizer in the soil is used up. Over-fertilization is less likely to occur if the soil in which tomatoes are planted is fertilized at the time of planting and then again only when the plants start to develop fruit. A fertilizer that has more phosphorus than nitrogen is usually sold as a tomato or vegetable fertilizer. Used in the amounts as directed on the package label, these are less likely to promote over-growth than one which has a higher level of nitrogen than phosphorus. Strong growth may also be checked by pinching off the growing tips of stems, or by a modest root pruning. Either method may slightly shock the plant and stimulate the production of fruit.

Tomatoes grow and bear fruit best where they get a full day's sun; they need a minimum of six hours of sun a day to grow and produce a satisfactory crop. They are easiest to grow when planted in well-drained soil, but they can be grown in adobe or other dense soils if watered carefully. Deep and infrequent watering is better than watering lightly and frequently. Another problem encountered in growing tomatoes is blossom-end rot, indicated by the appearance of a black, leathery scar on the blossom end of the fruit making it unfit for use. This can appear on fruit at any stage of development and is caused by an uneven water supply, such as too frequent waterings, too great a period between

waterings, or by periods of hotter than usual weather or lower than normal humidity which increases the plants' need for water. The amount of fruit spoiled by blossom-end rot can be reduced by an irrigation schedule that maintains a moderate level of water in the soil by the use of a mulch, which will have a stabilizing effect on the water level in the soil, and by planting in well-drained soil.

Tomatoes are hosts to several soil borne organisms which can reduce their vigor and may, at times, kill the plants. In the past these have been controlled by rotating the crop, allowing at least two years between tomato crops, or by soil fumigation. During recent years hybridization of tomatoes and the search for varieties with improved qualities, has produced some varieties that have a resistance to disease-causing organisms. Such resistance is indicated with letters that follow the variety name as listed in a catalogue, on a seed packet, or on labels in pots or pony packs. The letter "V" following the name indicates the variety is resistant to Verticillium Wilt; the letter "F" refers to Fusarium Wilt. These wilts affect tomatoes and many other plants by destroying all or part of the root system, causing partial or total death to the above ground parts of the plant. The letter "N" indicates resistance to nematodes, which are microscopic soil inhabiting worms that invade the roots of many plants, weakening them and causing galls or nodules to develop on the roots. Varieties may be resistant to only one, two, or all three of these pests. The gardener might be well advised to require the tomato varieties he grows to be resistant to all three of these pests, growing only those varieties whose name is followed by the letters "VFN."

Where soil is unsuitable because of poor drainage or other faults, or is badly infested with the soil borne pests, growing tomatoes in containers where the drainage is adequate and the soil free of pests could be the answer. Soil substitutes such as sawdust or other wood products of a suitable texture, or rock derivatives, such as vermiculite, sponge rock, or sand, may be used if irrigation and fertilization practices are adapted to the material being used. When using these materials the gardener will know his growing

medium is free of soil borne pests. Potting soil, which has been sterilized to kill harmful organisms, and is of good physical texture and nutritional quality, can be bought at garden supply stores and is suitable for this purpose.

Hybridization efforts in the past have also created tomato plants which differ in size—from dwarfs which have small to medium sized fruit to the conventional sized plants with small, medium, or large sized fruit. The dwarf varieties can be grown satisfactorily in containers equal in size to an eight inch to twelve inch pot, while the medium and large size plants need a container with about a five-gallon capacity to grow properly. Resistance to the soil borne pests has been recommended where plants are to be grown in the garden and while there is no loss in using resistant plants in containers, it is less necessary than in the garden. It would be a good precautionary procedure to sterilize containers after each use by washing them with a ten per cent solution of liquid bleach and using fresh media for each planting. This would reduce the possibility of any infection being carried over to the succeeding crop.

Tomato plants can be supported in order to occupy less space in the garden and keep the fruit off the ground where it is less prone to insect damage and decay. There are several ways in which this can be done, and one of the most effective is to grow vines supported on wires stretched between posts. This method is used by commercial growers in Southern California to produce top quality table tomatoes. Stout posts are set at the ends of the row and three wires are stretched between the posts, the lowest wire 18 inches above the ground, the top wire about five feet high, with the third wire between these two. Plants are set from two to three feet apart in the row and a garden stake is set behind each plant and tied to the wires. As the plants grow, the main stem is tied to the stake and as laterals (side shoots) develop, they are led along the wires, or to the wire above. Suckers, which grow from ground level or below, and laterals which grow out below the bottom wire, are cut off. This reduces the size of the plant and to a degree the poundage of fruit it will produce, but will force the plant to come into production earlier. If plants are spaced as suggested, there will be



plenty of growth from the pruned plants to more than fill the wires. The advantage of this method of growing tomatoes is that the free standing wire trellis has light and air all around it so fruit can be produced throughout the growth and will ripen more evenly and quickly. Also, insects are easier to control and less likely to become serious.

Vines may also be supported by encircling them with concrete reinforcing wire mesh. A piece about five feet wide and six feet long will make a column five feet tall and two feet in diameter. The mesh openings are about four inches on a side allowing access to reach through. The column surrounds one plant, and may be held up by a stake until some side growth develops. As the growth is made, the column supports the plant and keeps the fruit off the ground. A side shoot that comes through the mesh should be tucked in from time to time, for if it is allowed to grow outside the column, the weight of the fruit it bears can either damage the shoot where it rests on the wire or break it off entirely.

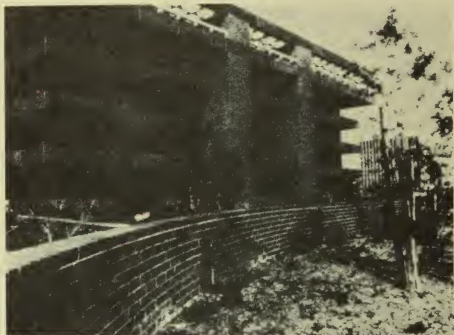
In the mild weather coastal areas of Southern California, tomato transplants can be set out as early as February, provided that plants are protected from frost with a covering which will also hold heat. Hot caps, a wax paper covering have been used for this purpose for years. Other items suitable would be plastic sheeting, which can be held above plants by wire hoops and held in place by dirt piled onto the edge of the plastic; also plastic gallon jugs from which the bottoms have been cut are effective. Plants can be set as late as August and will start production during November-December, well before the first frost is expected. If the vines are frozen, all is not lost, for green fruit which is well-sized may be picked and taken indoors and will ripen over the next month to six weeks. Small green fruit, which will not ripen with any degree of certainty may be made into relish, or used in other green tomato recipes. □

George James suggests these tomatoes—they are red colored, large-fruited, table varieties:

'Better Boy' VFN

'Beef Master' VFN

'Pearson' VFN



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# Geraniums

by KARLA BARBER

The author is an accomplished, experienced geranium grower.

THE PLANTS THAT we commonly refer to as “geraniums” are really going under a borrowed name. Although they belong to the family of *Geraniaceae*, the correct name of its particular genus is *Pelargonium*. Among this group, we find a great number of species, the three most familiar of these being *Pelargonium hortorum*, the common garden geranium, *Pelargonium peltatum*, the ivy leaf geranium, and *Pelargonium domesticum*, the regals or Martha Washingtons. To each of these species belong a large number of varieties. Many of them are so unique and distinct that you could actually have hundreds of geraniums in your garden, all of them different with many not even related in appearance.

*Pelargonium hortorum*: Say the word geranium and 95 per cent of the people you talk to will immediately picture in their minds the common pink or red zonal that everyone’s grandma would just stick in the ground and forget. Yet what a fantastic selection of zonals is available to those who just look a little further! Not only do they bloom in a wide range of colors from white to darkest red and purple with all the pinks, salmons, oranges in between, but they also come in two color combinations. There is also quite a difference in the various blossom shapes. You can find singles, doubles, rosebuds (resembling tiny, half opened roses), cactus or poinsettia flowered (single or double blossoms with narrow rolled or curled petals), and carnation flowered (edges of petals are serrated).

Besides being able to choose among so many different kinds of blossoms in the zonals, there is also a group quite distinct for the pattern and color in their leaves. Instead of the familiar darker horse-shoe zone on each leaf, these fancy leaf zonals have unusual coloring and markings that vary from dainty, narrow borders of white or ivory, to brilliant combinations of yellow, crimson, and brown patches. ‘Mrs. Cox’ is probably the most spectacular example.

In the last few years, another group of zonals has become very popular—the miniatures and dwarfs. These small plants are indeed attractive, offering an abundance of blooms on compact plants that require much less space. They are ideal for a sunny apartment window.

*Pelargonium peltatum*: These are the ivy leaf geraniums, so called because their leaves resemble those of the true ivy. Their blossoms are either single or double, and the plants are either compact, medium, or long trailing. They are perfect for ground cover or hanging baskets. The three colors and their varieties that come to mind immediately are ‘Intensity’ (red), ‘Comtesse de Grey’ (white), and ‘Mrs. Banks’ (white). Because of their hardiness and strong trailing properties, these three seem to be used exclusively in commercial landscaping. Don’t let it keep you away from investigating and searching out some of the many other varieties available—especially in the lovely hues of lavenders and purples—and from introducing them to your garden. A patch of the lavender ‘Santa Paula’ alternating with the deeper ‘New Purple’ can have a most striking effect. Try a combination of various shades of only pinks such as the light pink ‘The Blush’ with the stronger medium pink of ‘Charles Turner’ and the deep cerise of ‘Beauty of Eastbourne’.

For hanging baskets, what could be as gorgeous as the lavender cascades of ‘La France’ or the various velvety red shades of ‘Red Velvet’? Who could resist the appeal of the miniature ivy leaf with the tiny purple flowers of ‘Gay Baby’ or the brave little ‘Sugar Baby’, which always seems to be covered with a profusion of pink?

For a real attention getter, you can always rely on the variegated ivy leaves such as ‘L’Elegante’ with its broad ivory margin on each leaf that turns hot pink in the summer. A hanging basket of any of these highlighting some sunny porch or patio, is bound to elicit comments of admiration.

*Pelargonium domesticum*: No geranium show

would be thinkable without the crowning glory of the regals! Also called the Florists' or Show Geraniums, Martha Washingtons or Lady Washingtons or simply pelargoniums, these are truly the show-type of all geraniums because of their large size and delicate beauty. Every year hybridizers introduce new improved varieties and it makes one wonder how it could be possible to improve on what is already available.

Their colors range (either singly or in combinations of two or three) from white, pink, salmon, apricot, red, lavender, purple to maroon, and almost black. In between the more solid colored blossoms there ranges an infinite array of color combinations of two or three shades, in a variety of markings, veining, edging, blotches and patterns (often reminiscent of pansies). Besides being perfectly at home in containers, regals make beautiful garden shrubs with their attractive serrated foliage. A few of the regals are even suitable for hanging baskets. Among these are 'Black Lace', 'Flower Basket' and 'Santa Cruz', as well as the smaller pansy-face varieties such as 'Madame Layal', 'Seelys Pansy', 'Chickadee' and 'Tiny Tim'.

In addition to the above three most familiar groups of pelargoniums, there is also a most fascinating array of scented-leaf or herbal species. They are grown mainly for their pleasantly scented foliage, with their blossoms playing a secondary role. The majority have small, narrow-petaled lavender flowers. A few do have larger, more colorful blossoms as an added bonus. Their amazing diversity of leaf shapes include very stringy, fern-like to almost round and velvety. The majority are finely serrated and indented. Several are called oak-leaf because of their distinctive shape and yet a few are even variegated. However, their most intriguing quality is their amazing variety of fragrances. Some are almost perfect imitations of familiar scents such as rose, lemon, mint, spice, nut, fruit and pungent. Although they do quite well in containers, the ideal spot for them is here and there along the side of your garden path, where their delightful fragrance can be enjoyed by merely brushing by as you walk.

Once you become an enthusiastic pelargonium collector, you will soon develop an interest in other species. Some are attractive only because

they are odd and unusual, for example *P. gibbosum* or *P. tetragonum*. The former has knobby jointed stems and rare yellow flowers and the latter has succulent, angular stems and few leaves. Both are climbers, but neither seem to have any relation to geraniums. They surely are pelargoniums though!

The geraniums (pelargoniums!) mentioned in this article are all easy to grow if a few simple procedures are followed:

**SOIL**—Geraniums do well outdoors in any good, well-drained garden soil that is not too rich. If the soil is heavy, add one part peat moss and one part sand to two parts soil.

**FERTILIZER**—Bonemeal or superphosphate mixed in the soil will be beneficial. Regular, but light feedings are important especially for potted plants. A method that is safe and will keep your plants well and happy calls for fertilizer mixed to half strength used twice as often as directed on the package or bottle. Never fertilize when the soil is very dry.

**WATER**—Water thoroughly when the soil is fairly but not completely dry. It is better to give one or two good waterings a week than a little every day. Pots should be given enough water to run out the bottom, and then no more until the soil becomes dry again on the surface.

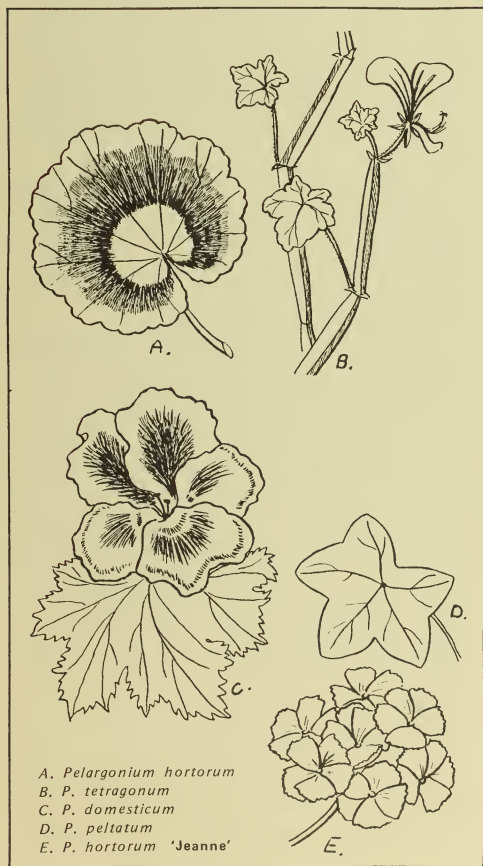
**SUN**—Lots of sun is needed, but it should be a shielded sun during the hottest part of the day. Protection from excess wind or draft is a must.

**POTTING**—Geraniums are ideal for container gardening, just don't over-pot. They bloom better when slightly pot-bound, so when shifting, just move up to the next larger pot size. An over-potted plant is often over-watered and also over-fed resulting in lush growth but few flowers. Potting soil should be of a texture to give good drainage and aeration, but of sufficient body to allow firm potting. Potted plants should be rotated one quarter turn in the same direction every few days to insure a more symmetrical growth.

**PRUNING**—Many plants, if left to their own devices tend to become ill-shaped and leggy. This can be avoided by pinching back the tip of new growth, especially while the plant is still very young and taking shape. Regal geraniums must be pruned in the fall if they are to bloom properly and eagerly

enough the next year, but zonals seem to benefit from spring pruning. Because blossoms are produced along the tips of new growth, it is important to stop "pinching" back at least six to eight weeks before you want or expect them to bloom.

**PEST CONTROL**—Aphids and white fly are the most common invaders, but are easily controlled with a malathion pesticide. It should be applied in the spring when these little pests seem to first appear, and continued throughout the summer when necessary. Worms and caterpillars can be destroyed with a systemic such as Scope or Isotex spray. Inspect your plants regularly, especially the leaf undersides, to detect pests while they are few and easy to control. □



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# Out Of Fashion Shrubs

by HELEN WITHAM

LIKE STRAW HATS and cardigan sweaters, flowering shrubs periodically come into or go out of fashion. In some cases a shrub that admirably fills a garden niche is replaced by an improved variety or by another kind of plant. In other cases, some difficulty in keeping a certain species thriving discourages people from using it. Sometimes the reason for a plant's disappearance from the garden scene is not apparent—it just falls out of favor.

Take *Abelia*, for example. This shrub with its sparkling red-tinged foliage and delicately fragrant pinkish-white flowers present all summer and fall, was once very popular. It still has the same attractive flowers and foliage, freedom from pests, and tolerance of neglect, but it seldom appears anymore in new plantings. Oh, it's still around but mostly in old gardens or park shrubberies.

I think perhaps *Abelia* has lost favor because one simple cultural practice has not been understood or followed. This is the practice of thinning out. It takes only a few minutes out of a year's time to remove older branches at or near the base. Kept to five or six branches, *Abelia* will arch gracefully and produce masses of fragrant tubular flowers for months on end.

Most commonly seen is the hybrid *Abelia* x *grandiflora*, a six to eight foot shrub for use as screen, hedge or specimen plant. It stands shearing, although of course sheared plants lose most of their flowering wood. It is evergreen in our climate; foliage is bronzy in spring and fall, deep green at other seasons. Corollas are white, falling cleanly and leaving long-lasting coppery calyces that look like flowers themselves.

The low growing *Abelia* 'Edward Goucher' is best in a raised bed or on a bank where its lilac pink flowers and small crisp leaves are close to eye level. This one too needs thinning once a year.

In 1947, Sydney B. Mitchell, eminent gardener and garden writer, (IN A CALIFORNIA

GARDEN), introduced his discussion of these shrubs with the comment: "I would not want to be without *Abelias*". I venture to say fewer of us were without *Abelias* then than now. Perhaps we should do something about this.

How long since you have seen Australian Bluebell Creeper (*Sollya fusiformis*, formerly *S. heterophylla*)? It is an excellent low mounding shrub. Perhaps it lost out as California became paved with junipers in the last two to three decades. But, no juniper ever had the tips of its branches strung with little bells of clear pure blue.

*Sollya* is a good low filler, dense enough to shade out weeds when once established. Its foliage, on slender twining stems, is a particularly fresh green, and its flowers, though small, are a blue not often seen in gardens.

While *Sollya* is a rare pure blue, *Hypericum* or St. Johnswort, is a rare pure gold. Most *Hypericums* are mounding sub-shrubs or large ground covering perennials. Their showy five-petaled, saucer-shaped flowers are notable for having masses of long stamens. In *H. moserianum* these are tipped with crimson; in *H. patula* and *H. calycinum* they are yellow gold. In fact, this last one is often called "Aaron's Beard" in reference to all those golden "whiskers".

All the shrubs mentioned here are available in local nurseries although it may take a little searching to locate them—a good excuse for nursery visiting in case you feel an excuse is needed. Spring weather is usually excuse enough. □



*Abelia* x *grandiflora* Photo by Betty Mackintosh

# Arrangements For Competition

by PEG KENDALL

THE ARTISTIC DIVISION of all flower shows has themes and the arranger's creation should correspond with the title and style designated in the schedule. Special arrangement rules are always listed and these must be adhered to or the arrangement will be disqualified by the flower show committee. This does not mean it must be followed literally; featuring the Liberty Bell to express our country's bicentennial is literal but does not express originality or imagination.

Careful study of the entire flower show schedule is most important and once settled in the arranger's mind, the fun begins—allowing the imagination to run in high gear. It is interesting to see what different designs are entered using the identical theme and style. As there are no blueprints to follow, just do your interpretation of the theme and soon you will begin to develop your own style of arranging. Needless to say, all materials must be clean and well-groomed. Learning how to condition your material so it will stay fresh for the duration of the show is an important aspect of arranging flowers for competition.

Pictured here are a few typical competition arrangements. Try some yourself—win, lose or draw, flower arranging for competition is gratifying and fun!

PICTURE ONE: Theme—"A Touch of Drama"  
Style—tall modern line arrangement.

The container is beige; line material is brown flax with dried embryo tree fern fronds placed to break the severity of the tall line. Two copper toned ranunculus, one philodendron leaf cut to a point, and a sprig of leatherleaf fern complete the design. The dark triangle base has the long point placed to repeat the line of the lower looped flax leaf, giving the arrangement repetition and correct balance.

PICTURE TWO: Theme—"Outdoor Life"  
Type—arrangement using driftwood with accessory.

A cup holder is used to hold the flora and is hidden by the driftwood. The oval base and driftwood are brownish-grey, and the pruned nandina tree has touches of the colors in the two bird of paradise blooms. Leatherleaf fern at the base gives a "woody" effect. The guarding duck is off-white with grey tail and wings. His feet and beak are orange, again repeating the color of the birds of paradise.

PICTURE THREE: Theme—"Hi-Lo"  
Style—height from a low container.

The container is beige. The strong main line was achieved by using four pieces of horsetail (*Equisetum*). Three have naturally curved stalks to create the modern design, and echo the line of the modern container. One camellia placed in the back for dimension appears to be framed by the lower curve. The focal flower is brought well forward. The design is completed with dark green camellia leaves. Three thin, dark brown boards for the base lend contrast to the design.

PICTURE FOUR: Theme—"Busy Housewife Arrangement"  
Style—Arranger's choice.

My interpretation of the theme was to create a permanent background design so that different fresh flowers and leaves could be changed when needed. In the picture I used 'Buddha' camellias. Roses, irises, dahlias, or most any bold type of garden flower could be substituted. A ceramic compote, golden brown and black, was placed on a medium heavy black rectangular base for necessary proportion. Height with a strong vertical line was attained using dried natural colored Japanese grass. A rhythmic black twig repeats the spiral pattern on the container and carries the eye downward to the lower camellia which is brought forward over the surface of the compote. One oak-leaf geranium leaf adds texture and dimension.



# Tropicals Worth Trying

by Dr. DONALD P. WATSON

The author is Professor Emeritus from the University of Hawaii where he was chairman of the Department of Horticulture.

SKILLED GARDENERS always want to grow plants that are difficult, or that require special care. Having just moved to San Diego from Honolulu, I am aware of the wealth of spectacular tropicals Hawaii has to offer. But, homeowners there are always trying to make temperate plants succeed. They love to baby an azalea, a jacaranda, a pear tree, or a tulip in a garden at sea level where there is no dormant period and where the temperature rarely goes below 70 degrees.

San Diegans are no exception. In fact, they are so skillful that the desire to grow the unusual is greater here than anywhere I have ever lived. Southern Californians work on a prized lilac in a location where the nights are rarely cool enough to create adequate dormancy. Then there is the homeowner who proudly displays a bunch of bananas grown where you'd never think it warm enough to make them mature. These are dedicated people working hard to overcome difficulties at both ends of the thermometer.

In reality, I doubt that there is any place in the country that provides a gardener with a greater variety of plants, some tropical, plenty sub-tropical, and some that are temperate in their natural habitat, than Southern California.

The following four tropicals are among my favorites. They are fairly common, but need to be given special care for successful growth in Southern California.

*Plumeria acutifolia* or frangipani is a woody shrub or small tree from tropical America that thrives in Hawaii. Anyone who has ever been greeted with a plumeria lei will never forget the scent of a frangipani flower. While there are good sized shrubs growing and flowering on the grounds of the San Diego Zoo, it would perhaps be simpler to grow them as a container plant. Woody cuttings twelve to eighteen inches long are available in local nurseries. Some of them are rooted and if not, they will root easily in a well-aerated soil

mix and grow to be three feet high in a two gallon can.

While they are rooting, stake the stem firmly or anchor it with rocks on top of the soil inside the container. Keep it in the full sun, in a sheltered location, feed and water it sparingly. When the leaves drop in the fall of the year be sure to not overwater the soil. The flowers are waxy, open over a period of several weeks, and keep fresh quite a long time.

*Musa coccinea* or scarlet banana is an ornamental member of the banana family. It is a large plant perhaps ten feet high and spreads rapidly. Select a sheltered permanent location that is partially shaded. Prepare a rich organic soil two feet deep and in a place that can be given regular irrigation. It is propagated by root division like any other banana. If you can't locate plants locally, write to Dr. Fred Rauch, Department of Horticulture, University of Hawaii, Honolulu, Hawaii, 96822, and ask him to put you in touch with the Hawaii Association of Nurserymen.

The scarlet banana has a most spectacular inflorescence with large red bracts that stand upright and last for at least three weeks. As with any other banana, after it has finished flowering, cut the whole stalk off at ground level so new plants will grow up from the base.

*Clitoria ternatea* or butterfly pear is a vine, a legume, and comes from Asia or South America. While there are white and double flowering strains, the common single flowered blue clitoria is the most beautiful. It is a vivid gentian blue, one to two inches in length with a wavy-rimmed standard and white center. The vine grows rapidly from seed. If it were started early in March, I am sure it would twine over a trellis and flower the same summer. The trick is to get some seed in the first place. Try a seed company that deals in unusual seeds, or if you have a friend in the islands, ask



him to send you a few seeds. Once you get it started, it will set seeds profusely so you can grow it as an annual.

*Telosma cordata* or Chinese violet, is also a vine from India or China. The name is appropriate because of the pungent violet fragrance of the flowers. They are borne in short stemmed clusters at the leaf axils. When they first open, the flowers are olive green but change to yellow green and gold as they mature.

To grow this vine you will have to find rooted cuttings or young plants that are already started. Most nurseries won't carry them but if enough people keep asking, the astute grower will find a way to get them. Find a hot dry sunny, but sheltered location for growing. Use a trellis so that the stems can wind around upright supports. In the fall, cut the plant back to a foot from the ground. Treat it as a perennial and it will grow up again year after year.

As I said at the beginning—only those gardeners who welcome a challenge should bother with these special items which require special care. They are borderline specimens for this climate. □

ABOVE RIGHT: *Plumeria acutifolia*

BELOW RIGHT: *Musa coccinea*

BELOW: *Telosma cordata*



# Welwitschia The Wonderful

by GILBERT VOSS

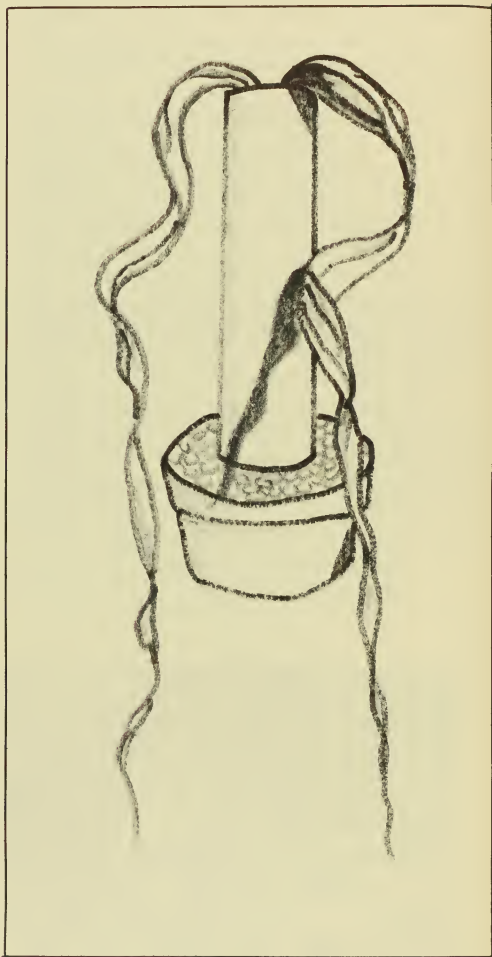
The author is a working horticulturist for Quail Botanical Gardens. He has a special interest in cactus & succulents.

WHILE LIVINGSTONE was exploring the interior of darkest Africa in the mid-19th Century, European and South African botanical explorers were probing the extremely dry deserts of southern Africa. It was during an expedition traversing the barren and dessicated Namib Desert of Angola and South West Africa that the Austrian explorer Dr. Friedrich Welwitsch discovered a plant that jarred the botanical world. Dr. Welwitsch sent specimens to Sir William Hooker, then director of the Royal Botanic Gardens, Kew, England. Sir Hooker names the plant *Welwitschia mirabilis*—the wonderful welwitschia.

You would be amazed if you could see welwitschias in their native habitat—a flat, all but lifeless desert of sand and gravel. Here and there, what appears to be piles of old tire inner tubes, are really welwitschias. You can't call them beautiful, but they certainly are wonderful! Classified as gymnosperms (naked seeds) like the pines, they belong to an order and family all by themselves. Although they have no close living relatives, they are nearest to the Mormon tea (*Ephedra* spp.) of our American deserts.

The aridity of their environment (rain in the form of sprinkles falls only every few years) has caused welwitschias to develop an extremely long tap root that reaches to unknown depths for possible subterranean water. The top of this root is modified into a stump-like stem three to six feet in diameter, but only projecting from the soil about a foot. It is from this woody brown stem that the leaves are produced. Welwitschias produce only two stiff, greyish blue-green, strap-like leaves throughout their extremely long life. These leaves are split and shredded by the winds that shriek across the Namib. It is these piles of shredded leaves that give the plants the appearance of refugees from a junk yard.

Welwitschia reproduce by cones as do all gymnosperms, but unlike other gymnosperms which are wind pollinated, welwitschias are pollinated by



PICTURED ABOVE:

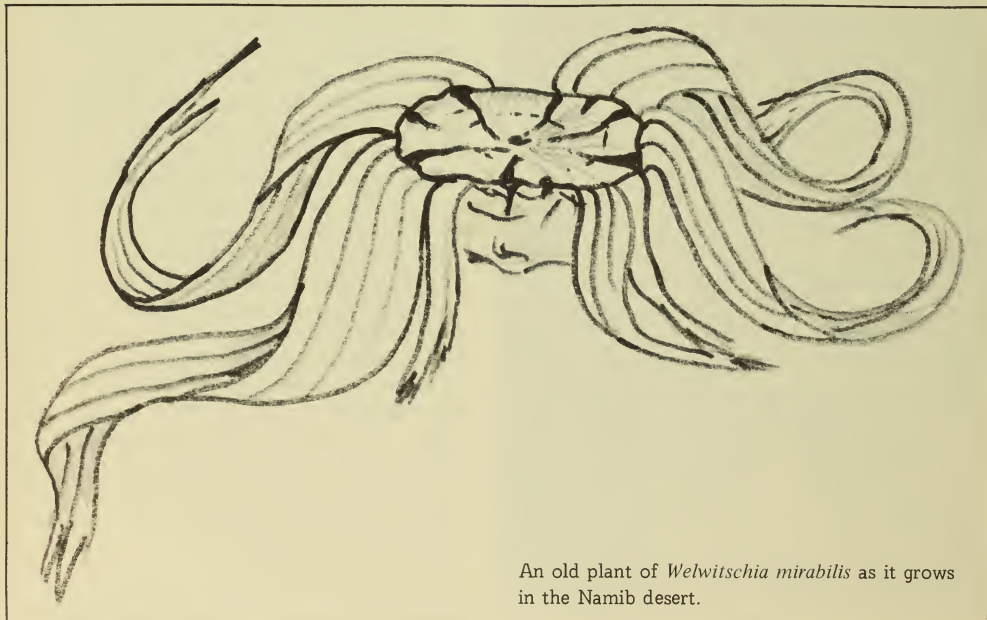
A ten year old plant of *Welwitschia mirabilis* in the collection of the author.

insects. The sexes are on separate plants and the ovulate (female) and pollenate (male) cones are developed on long stalks from the margins of the stem near the leaf bases. The ovulate cones are red and about the size of turkey eggs. They are composed of scales and winged seeds (for wind dispersal). The pollenate cones are produced in clusters and each is about an inch long. Both appear only after a heavy rainstorm or a series of smaller ones; since rain falls only every three or four years, this, in conjunction with the scarcity of insects to pollinate them, is the reason welwitschias are so rare even within their limited range of the Namib Desert. In portions of their range that border areas of slightly more frequent rainfall, the plants are more common.

I mentioned that welwitschias are long lived, but only now are we beginning to learn just how long. Originally Dr. Hooker placed the age of plants at 100 years, but recent estimates state that they may be well over 1,000 years old. It is possible, however, that even this figure may be incorrect. Carbon 14 dating techniques used on very large plants have put their age as high as 2,000 years, and the leaves are as old as the stem.

Welwitschia plants are still quite rare in cultivation because of the difficulty in obtaining seeds. Since they are produced sporadically, they have to be collected at just the right time—not just the right year (when it rains) and the right time of year (when there has been enough rain), but also at the time when the seeds are ripe but have not been scattered by winds. The seeds should be germinated in very sandy soil in tile drain pipes or transplanted to the pipes shortly after germination. The plants must be grown in these pipes due to their very long tap root. Every care must be taken that the very fine tap root is not broken during transplanting or the plant will die.

Only a few welwitschias have ever been grown long enough to produce cones. Under ideal conditions at the University of Stellenbosch in South Africa, plants grown from seed have reached the reproductive state in 21 years. This year the plant I grew from seed will be ten years old. I've kept it in a glasshouse and given it only occasional watering and with luck in eleven years I'll know whether its name is "Welliam" or "Wendelyn". □



An old plant of *Welwitschia mirabilis* as it grows in the Namib desert.

# A Botanical Garden

—with animals

by STUART MACDONALD

ON A WARM and sunny day in early spring we visited the San Diego Zoo to talk with Mr. Ernest Chew, Zoo Horticulturist. As familiar as the Zoo is to millions of people, the animal collection has so thoroughly dominated public awareness that the plant collection is often overlooked entirely. What has been developing over the last few years is recognition of the Zoo as a full-fledged botanical garden. As Mr. Chew observed, "Now whenever I say anything about the Zoological Society, I never say the San Diego Zoo—I always say the San Diego Zoological Gardens."

In 1970, Mr. Chew came to work for the Society as Horticulturist in charge of the Zoo grounds and gardens. It has been his goal to create more than just a leafy setting for the animal collection. Though many fine and rare plants have been planted at the Zoo over the years, they were unlabeled and randomly placed. Much of the area was unused and overgrown with common varieties. In addition, there had never been a general plan or any attempts to organize the plantings. Mr. Chew saw this neglect as an opportunity. "When I came here in 1970," he told us, "I decided that San Diego was missing a beautiful chance, that the Zoo was only being half used. And so we set up a general plan and decided on which types of plant materials that we would try to collect."

We asked Mr. Chew to explain the difference between an ordinary garden and a botanical garden. The first step, he said, is "to think of it as a botanical garden." And hence the plans for development, landscaping, and systematic collecting. In addition, guidelines of the American Association of Botanical Gardens and Arboreta suggest that at least 60 per cent of the plants be labeled. An inventory must be made to learn exactly what is growing in the Zoo gardens. An *index seminum*, or index of seeds, must be maintained in order to give other botanical gardens the opportunity to

propagate a particular plant, and to preserve endangered species by making their seeds available. A botanical garden is also a place for research, for the testing of new plants, and for the introduction of promising new species and cultivars to the community. Another function is that of public education. Eventually there will be pamphlets and guides published to acquaint visitors with the wealth of botanical material at the Zoo.

A main concern of Mr. Chew in developing and focusing the Zoological Gardens has been to take advantage of the unusual climate, and also to recognize its limitations. "You can't grow everything," he said, "You've got to limit yourself to something, so what I've done is tried to pick out the rarer things we can grow well here and grow them well—and not worry about the things we can't." This policy means excluding many plants native to northern climates, since they generally grow better elsewhere. Furthermore, the North American and European natives are well represented in botanical gardens throughout the temperate world. "Since we do grow subtropicals well here," said Mr. Chew, "I've striven to collect new and unusual subtropicals, as well as tropicals that can take our cold weather." Another aspect of plant selection involves the various micro-climates within the Zoo grounds. For instance, the area from the entrance south to the children's Zoo is the warmest part of the Zoo, where minimum temperatures go no lower than 38 degrees. Here is where such trees as the tropical figs are found, since they are very susceptible to winter cold. The other temperature extreme is found in the canyon bottoms along the western boundary of the Zoo. Here temperatures have often dropped to 25 degrees, providing enough chilling to encourage spring bulbs, conifers, and flowering peaches and crab apples.

So what the Zoo visitor sees is a landscape that changes from tropical jungle to redwood forest to Australian woodland. Such variety is



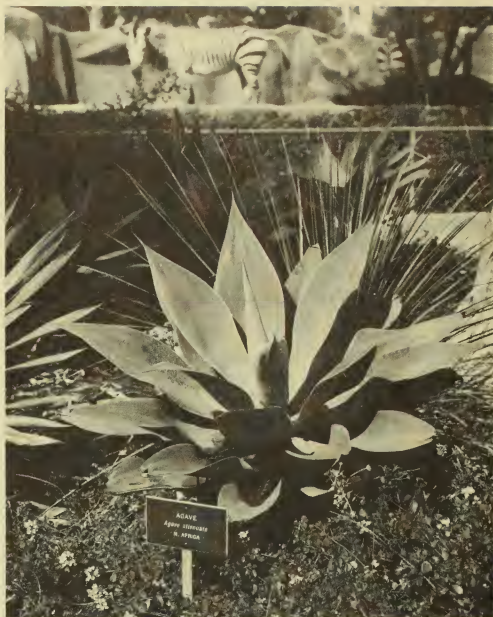
one of the greatest charms of the Zoo, but it takes planning and restraint to recreate a specific part of the world with plant materials. A major concern of the horticulturist, then, is in grouping plants systematically. The part of the Hoof and Horn Mesa devoted to African animals is enhanced by the use of plants native to that part of the world. Thus we find a section devoted to aloes, with a large euphorbia tree in the background, and walks lined with many different ice-plants native to South Africa. Further on are kangaroos accompanied by Australian eucalyptus trees, as are the koalas in their own large enclosure. And a recently built enclosure for lemurs is landscaped with tropicals of Africa and Madagascar, such as *Cyperus alternifolius* and *Stephanotis floribunda*.

There are also areas where particular plant collections are located, such as Fern Canyon which contains many ferns and tree ferns as well as other tropicals. The road through Stork and Crane Canyon up through Dog and Cat Canyon has been planted with a variety of trees for fall color—that Southern California rarity. Here we find elms, maples, liquidambars, and pistacios. What has long been called the Jungle Trail behind the Children's Zoo is gradually being replanted in order to create a more authentic jungle. Other collections include the bromeliads at the head of the Jungle Trail, a variety of palms near the great apes, and cycads from around the world between the Reptile House and hummingbird enclosure.

A large part of the new acquisitions have been made possible by donations. Among San Diego Floral Association member clubs, many plants have been given by the Bromeliad, Cactus, Epiphyllum, and Iris Societies. The entire orchid collection, including greenhouses and a display case just north of the Flamingo Lagoon, was the result of major gifts from private individuals as well as plants from the San Diego Orchid Society. Other orchids came from the Los Angeles State and County Arboretum, as have many other plants now at the Zoo. This sort of exchange is carried on among botanical gardens all over the world.

Besides the orchids and tropical vines, there are a number of families and genera that Mr. Chew strives to collect. The Zoo is fortunate to have large specimens of several ficus, or fig species. The total number of species is about 35. One of

Agave and Zebra



Ficus Tree in Flamingo Lagoon  
(Peacock perches on air-roots)

Mr. Chew's favorite groups is the palms, and there are 120 species represented, many of them donated by the Palm Society, and twenty or more are seedlings still in the hothouses. Many of the new acquisitions are of seeds, so the hothouse and nursery complex is an extremely important part of the botanical gardens. Also growing under glass are 21 flats of new fern species that have been germinated from spores. One strong collection includes representatives of the various genera of cycads; another the erythras, or coral trees, which are an ever-increasing feature of the Southern California landscape. Also receiving particular attention from Mr. Chew are the bamboos, eucalyptus, acacias, cacti, and South African bulbs.

Maintaining a large botanical garden presents problems not encountered by the home gardener. Among these is the problem of simulating habitats ranging from desert to rain forest. Many of the plants are growing on steep slopes in rocky clay soil, which makes irrigation difficult. There is the problem of the physical presence of thousands of people every day, but more serious is the quantity of guinea fowl, peacocks, and jungle fowl who roam the Zoo. The birds eat a lot of popcorn and peanuts, but they are also very fond of tender, young plants. As a result, ground covers are very hard to maintain, which has led Mr. Chew to search for things that the fowl will not eat. The least edible, without being poisonous, is ivy. The Zoo now has 25 varieties which are growing in the landscape or being propagated in the nursery for future use. For the ultimate in peacock-proofing, an enclosure will be built to protect hanging plants and other tender specimens.

The observant visitor to the Zoo will find much of botanical interest. New plantings are found throughout the gardens, as well as many mature specimens from the days of the pioneers of the Zoological Society. A botanical garden is always growing and changing, for it preserves the past as it nurtures the future. San Diego is fortunate to have a zoo that is both a refuge for rare animals and a haven for exotic plants. □

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scott** 

—AN AMPLIFICATION OF *now is the time* FOR  
VEGETABLES FOR THIS ISSUE.

by George James

THE WEATHER DURING May and June in the coastal areas of Southern California is usually overcast and cool—not the best for growing some of the vegetables that are thought of as being summer crops. The root crops such as beets, carrots, radishes, and turnips grow well under these conditions, as do snap beans, summer squash, corn and cucumbers, all of which can be grown from seed. In addition, plants of celery, eggplant peppers, onions, and tomatoes can be set out successfully. Cantaloupes, lima beans, pumpkins, watermelons, and winter squash will grow better a little later when the weather is warmer, with the seed planted about the first of July. Lettuce and spinach do not do well in the hottest part of the year, but if grown for harvest during the summer and fall the quality will be better if they are grown in partial shade. Endive can be grown instead of lettuce and New Zealand spinach instead of the conventional varieties, both of which stand warm weather better.

In warmer weather it is important that plants always have an adequate supply of water. Irrigation by flooding or in furrows is preferable to sprinkling which wets the foliage and encourages diseases.

Fertilization, as well as irrigation, is necessary to grow good quality vegetables. The kind of commercial fertilizer that will give the best results is one called a tomato or vegetable fertilizer. They contain a higher percentage of phosphorous than nitrogen. If a fertilizer is used that has a much higher level of nitrogen than phosphorous, or contains only nitrogen, plant growth can be excessive which reduces the yield and quality of the edible parts. The practice of mixing fertilizer into the soil before planting has proven beneficial. Some gardens, where the soil is not fertile, or where there are roots from shrubs and trees that compete for food, may need more frequent feedings. It is safer to increase the frequency of the applications than to increase the amount applied at each application. □

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# now is the time

## BEGONIAS

MARGARET LEE

- ✓ to keep plants in active growth by feeding well-balanced  $\frac{1}{4}$  strength fertilizer once a week.
- ✓ to keep plants free from pests and disease by a regular spraying of insecticide and fungicide—but don't combine the two in one application unless the labels on the containers of the product state that it is a safe procedure.
- ✓ to keep plants free from debris.
- ✓ to protect from too much sun and drying winds.
- ✓ to keep damp but not wet.

## BROMELIADS

PHILLIP POTTS, Jr.

- ✓ to clean your plants and trim out any frost damaged leaves.
- ✓ to remove and pot offsets—if they are  $\frac{1}{2}$  the size of the mother plant or larger.
- ✓ to gradually move your sun tolerant plants into brighter light to get better coloration.
- ✓ to continue the battle against snails and slugs.
- ✓ to feed with a well-balanced fertilizer; drain and flush out the cups a week later to prevent any build up and rot.
- ✓ to keep walk-ways and areas around the plants moist for humidity if the weather becomes hot.

## CACTUS & SUCCULENTS

VERNA PASEK

- ✓ to move plants to a more desirable location in your landscape while the weather is neutral.
- ✓ to get out early to see the lovely night-blooming *Cereus*.
- ✓ to continue fertilizing and watering as the growing season is starting.
- ✓ to feed with 10-10-10 to promote flowering.
- ✓ to watch for scale—spray with soapy water in a floral sprayer.
- ✓ to take cuttings from Christmas cactus and other succulents.
- ✓ to watch for mealybugs and aphids.

## CAMELLIAS

BENJAMIN BERRY

- ✓ to begin fertilizing established plants using only acid types—cotton seed meal, fish emulsion, or a commercial type prepared especially for camellias. It is better to use less of the amount recommended.
- ✓ to water well and deeply the day before you fertilize and then lightly after feeding.
- ✓ to pick up all fallen blossoms—put in a tightly closed plastic bag and then into the trash; NEVER on the compost pile.
- ✓ to replace mulch where needed using either bark or pine needles.
- ✓ to maintain a regular spray program and dust with chlorodane under and around bushes to discourage leaf beetles.
- ✓ to prune out all dead branches, overlapping branches, and to thin out the center of the plant to allow good air circulation.
- ✓ to feed iron every other month to promote a healthy deep green.

## DAHLIAS

ABE JANZEN

- ✓ to plant smaller varieties, and give regular care for the growing plants.
- ✓ to draw soil around the plants as they progress in growth.
- ✓ to feed with low-nitrogen fertilizer (4-10-10) either dry or liquid.
- ✓ to spray weekly to guard against leaf minors, aphids and thrips. Try a systemic—use a weak solution on new foliage.
- ✓ to pinch out centers when two or three sets of leaves form.

## EPIPHYLLUMS

GENE SCHMEDDING

- ✓ to put out snail bait.
- ✓ to spray with systemic if you don't eat the fruit.
- ✓ to check for mealybugs—use rubbing alcohol and a swab stick.
- ✓ to check newly forming buds to make sure their tips are free and not pushed against trellis or tie.
- ✓ to fertilize for the last time until after blooming.
- ✓ to cut out old, dry branches.



- ✓ to cover exposed top roots on older plants with potting mix.
- ✓ to wash off accumulated dust from branches with a fine, soft spray.
- ✓ to enjoy the blooms tidy up your plants; remove old blades, add clean top mulch.
- ✓ to water carefully—don't let dry out but don't overwater either.

## FUCHSIAS

BILL SELBY

- ✓ to keep plants moist as the days get warmer.
- ✓ to mist on warm days.
- ✓ to have a regular feeding program of low nitrogen to increase size and amount of bloom.
- ✓ to continue pinching and shaping plants.
- ✓ to watch for white fly and inch worms—use a non-oily type spray.
- ✓ to turn your plants regularly to insure an even shape.

## GERANIUMS

PHIL BUSH

- ✓ to feed regularly—use low nitrogen fertilizer for bloom.
- ✓ to water carefully to have continued bloom.
- ✓ to pinch out tops of plants to make them bushier.
- ✓ to cut out older flowering wood to allow for fresh growth.
- ✓ to turn plants for full development.
- ✓ to watch for worms that bore holes in leaves; spray with Malathion or use a systemic. Use a regular spraying schedule as eggs will hatch as warm weather continues.
- ✓ to trim back after their spring bloom season—you can make cuttings of the trimmings because they root easily in sandy soil.

## IRIS

- ✓ to prepare beds for planting and transplanting tall bearded after bloom. Work humus into soil plus some fertilizer before replanting.
- ✓ to keep watering while still blooming.
- ✓ to feed Spurias with a low nitrogen fertilizer.
- ✓ to feed Japanese iris with camellia food in the water. Give plenty of water if not grown in pools.
- ✓ to check and mark clumps to protect the names.
- ✓ to watch for aphids; can use a systemic insecticide.
- ✓ to keep Siberian iris damp and feed for additional growth.

## ORCHIDS

LOIS K. DONAHUE

- ✓ to begin high nitrogen feeding for cymbidiums.
- ✓ to continue dividing cymbidiums that need it.
- ✓ to continue light but frequent feeding for the green-leaved cypripediums—use an organic food like fish emulsion.
- ✓ to continue light but frequent feedings for cattleyas.
- ✓ to maintain good air circulation and good humidity for all types of orchids.
- ✓ to use FRESH potting mix for all repotting.
- ✓ to use a non-oily spray for pests when necessary. Use special snail granules against these pests.

## ROSES

MRS. RICHARD BECTEL

- ✓ to mulch beds to keep roots cool and to keep the weeds down.
- ✓ to apply a complete rose fertilizer.
- ✓ to continue to pinch out small side buds for superior single blooms.
- ✓ to prune back spent blooms to a five-leaflet leaf node.
- ✓ to continue spray program for insect control when needed.
- ✓ to use Benlate systemic spray for mildew control.
- ✓ to wash off undersides of leaves daily to control spider mites.

## VEGETABLES

GEORGE JAMES

- ✓ to plant seeds and transplants of most vegetables except cabbage and those closely related.
- ✓ to fertilize most vegetables every three to four weeks using a vegetable fertilizer and following the package directions.
- ✓ to fertilize the following as directed instead of every three to four weeks:
  - corn, when eight inches tall and again when 18 inches tall.
  - lettuce once when about half grown.
  - tomatoes once a month AFTER fruit begins to form.
- ✓ to check Page 89 of this issue for the *now is the time* Special Amplification on Vegetables for more detailed information.

## GREEN THUMB ITEMS

- ✓ to plant Transvaal Daisies in well-drained soil and full sun with the crowns set high. Planted in clumps of three to five they are very effective in mounds or borders.
- ✓ to plant gladiolus for fall bloom.
- ✓ to feed azaleas and prune out dead wood.

# leafin' thru

—reviews by Rosalie Garcia



**THE FRAGRANT GARDEN**, Louise Beebe Wilder, Dover Publications, 180 Varick Street, New York, N.Y. 10014, 407 pages, \$3.50.

This book has inspired me to go about sniffing every plant in my garden, and to begin inhaling the fragrances of nursery plants. I am aware of them as never before. Mrs. Wilder has done this “sniffing” all her life and in this book, she shares her experiences with us. She has traveled, read, and studied widely and could not help putting in an enormous amount of information about plants. Although this book was first published in 1932, it has now been added to Dover’s long list of re-publications, making it as valuable now as it ever was.

In my sniffing, I agree with Mrs. Wilder that flowers do not have as much scent as they did in the old gardens. Our newer and more glamorous cultivars are often nearly scentless. She takes plants by seasons, by families and by scents, giving long descriptive lists of each. This book is such an excellent gift-giving idea that I plan to buy several.

**ALL ABOUT WEEDS**, Edwin Rollin Spencer, Dover Publications, 180 Varick Street, New York, N.Y. 10014, 330 Pages with over 100 illustrations by Emma Bergdolt, \$3.00.

Weeds, weeds, weeds—that’s what this book IS all about. Classification is done in two categories (grasses and non-grasses) and where they grow and how to eradicate them. Mr. Spencer points out those weeds which are beneficial when plowed under as green manure, but also admits that some are good for nothing.

The line drawings are especially good when it comes to identifying weeds we see all the time but really don’t know.

A particularly interesting fact I learned about one of my special pests, nut grass—if allowed to mature, they have an

edible nut on the roots. Also, I learned that the wild touch-me-not is a cure for poison ivy. To Mr. Spencer, a weed is a plant growing where you don’t want it to grow. Most of us already know what a weed is, but in identifying them, this book can be invaluable.

**TOMATOES**, Leopold Klein, William-Frederick Press, 55 East 86th Street, New York, N.Y. 10028, 88 pages, \$3.95.

This little gem is chock full of enthusiasm. For someone who has never grown a tomato, it can seem like the last word. Mr. Klein approaches growing tomatoes in a very scientific manner—keeping records, watching the progress of his plants daily. His method also calls for growing them in wooden containers sunk into the soil. Reporting a harvest of up to 100 pounds of tomatoes from four plants in a single box-hole, is testimony of his success.

**GRASSES IN CALIFORNIA**, Beecher Crampton, University of California Press, Berkeley, CA., 94720, 178 pages, \$3.95.

This good pocket-size book is perfect to take along on a back-packing trip or for a day in the desert or back country. The “botanically innocent” can understand and identify grasses easily from the drawings or color slides. For the “botanically trained”, the book contains much organized information for reference.

Beecher Crampton is a professor in the Department of Agronomy at the University of California at Davis. He specializes in the plants of the range.

**NATIVE SHRUBS OF THE SIERRA NEVADA**, John Hunter Thomas and Dennis R. Parnell,

CALIFORNIA GARDEN

University of California Press, Berkeley, CA. 94720,  
127 Pages, \$3.95.

Another excellent book to take along on a mountain trip, this book concentrates on our native plants. Plants are classified into botanic families with guides to identifying them. There are also lists of vines, plants with spines, plants with leaves with more than one leaflet, plants with opposite leaves, plants which lack petals, plants with flowers in catkins, plants with irregular flowers, and finally, plants arranged by flower color. Knowing anyone of these characteristics, it is easy to find the description of the shrub you are looking for.

The authors are professors of Biological Sciences, Dr. Thomas at Stanford University, and Dr. Parnell at California State University at Hayward.

SKIPPER COPE'S

## florascope

\*\*\*\*\* Strawberry geranium (*Saxifraga chinensis*) makes an excellent subject for a hanging basket. Plants have reddish runners which produce little plantlets in the air. This gives the plant a charming delicacy that is very appealing.

\*\*\*\*\* Whether your hydrangias are blue or pink depends on the variety, not rusty nails. They like acid soil and it often deepens the color.

\*\*\*\*\* Give your houseplants a summer vacation. Repot them and give them a nice rest under a shady tree or on a cool patio.

\*\*\*\*\* Water ferns with one teaspoon of household ammonia added to one quart of water for a rich green color.

\*\*\*\*\* For terrariums, place plants on a slope so that they may all be seen at the same time.

\*\*\*\*\* Palms do not resent being pot bound. This tends to reduce their size making them ideal for house plants.

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SAN DIEGO CAMELLIA SOCIETY  
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Pres: Capt. Ben H. Berry—435-2562  
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NATIVE PLANT SOCIETY, Fourth Wed.,  
Casa del Prado, 7:30 p.m.

Pres: Mr. Fred Sprout—222-8938  
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Fourth Tues., Casa del Prado, 7:30 p.m.  
Pres: Mr. Abe Janzen—277-4473  
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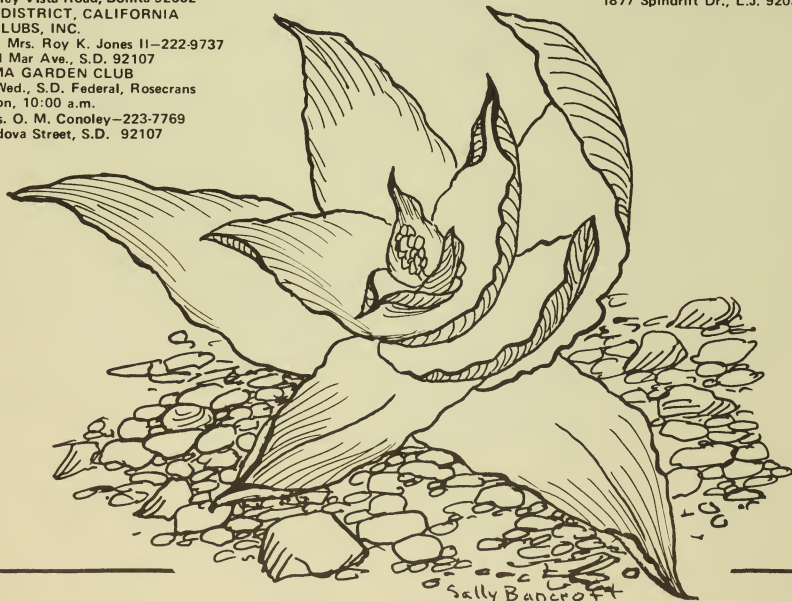
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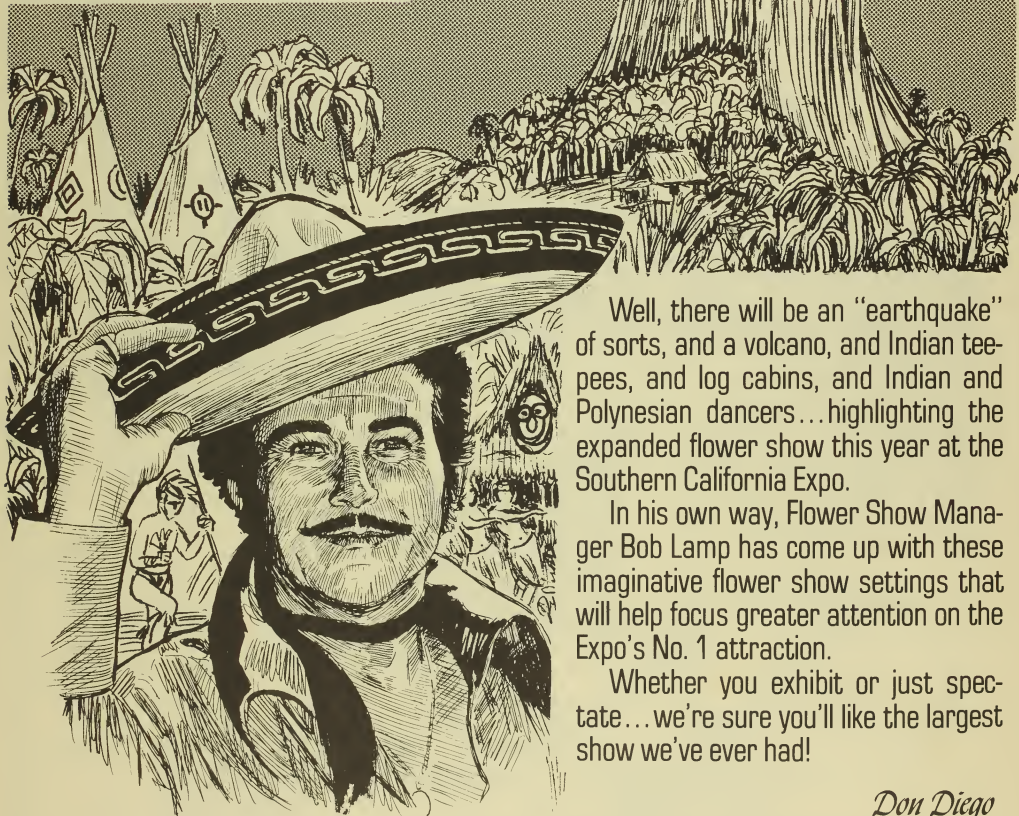


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